



## Pyraloidea (Lepidoptera) from Mt. Changbai–shan in China, part I

Yang–Seop Bae\*, Hong–Geun Oh, and Yong–Seok Yeo<sup>1)</sup>

Department of Biology, College of Natural Sciences, University of Incheon, Incheon, 402–749 Korea. E–mail: baeys@incheon.ac.kr

<sup>1)</sup>Horticulture and Forest Department, Yanbian University, Jilin, 133400 China

**Abstract** During the expedition of Mt. Chanbai–shan, China in 1999 to 2002, a total of 67 species belonging to 47 genera, 7 subfamilies are recognized. Of these, 11 species, *Eudonia hiranoi* Inoue, *Scoparia yamanakai* Inoue, *Crambus argyrophorus* Butler, *Goniorhynchus exemplaris* Hampson, *Herpetogramma moderatalis* (Christoph), *Herpetogramma pseudomagna* Yamanaka, *Opsibotys perfuscalis* Munroe et Mutuura, *Pleuroptya harutai* (Inoue), *Pyrausta rubiginalis* (Hübner), *Hypsopygia regina* Butler, and *Orthopygia nannodes* (Butler) are reported for the first time from China. The synonymies, distributional ranges, and photographs of newly reported species are provided.

**Key words** Lepidoptera, Pyralidae, Crambidae, fauna, Mt. Changbai, China

### INTRODUCTION

Changbai Mountain is 2,749 m high on the border between China and North Korea and is one of Chinese Nature Reserves, which were established earliest with the greatest area. It was joined into the International Biosphere Reserves of “man and biosphere” plan issued by UNESCO. The Changbai Mountain Nature Reserve covers three counties including Antu, Fusong, and Changbai. It borders on Korea southeast, longitude 127° 3'E–128° 6'E, latitude 41° 2'N–42° 5'N; 80 km long from south to north and 48 km wide from east to west. The source places of the Songhua River, Yalu River, and Doumen River are all here. The Changbai Mountain Nature Reserve is mainly used to protect the forest ecosystem and alpine tundra, alpine semi–hungryness, volcano geologic physiognomy complex. There are 176,076 ha of forest, 1,265 ha of bare mountain and wasteland, 402 ha of Tianchi lake and 378 ha of others.

The Pyraloidea is one of the larger superfamilies of Lepidoptera. Munroe and Solis (1999) recognized 20 subfamilies under two families. The two families, Pyralidae and Crambidae, comprises about 16,000 described species worldwide. The superfamily is defined as ditrysian moths by the following characters (Munroe and Solis, 1999): abdominal tympanal organ consisting of paired tympanal chambers on the ventral part of segment II, supporting a tympanum and conjunctiva, the former with a sensory scoloparium attached; maxillary palpus usually present; proboscis, if present, scaled at its base; R<sub>3</sub> and R<sub>4</sub> of forewing stalked or fused; Sc+R<sub>1</sub> and Rs of hindwing anastomosed or approximated for some distance distad of discal cell.

The present study is treating seven subfamilies of Pyraloidea. The second part will treat the

\* To whom correspondence should be addressed.

subfamily Phycitinae of Pyralidae. The pyraloid moths were collected at 28 sites in the years 1999 through 2002. All materials examined are based on the collections from the vicinities of Mt. Changbai-shan, which was scheduled by a collaborative survey program between the Yanbian University in China and the Center for Insect Systematics (CIS) in Korea, under the financial support by the Korea Research Institute of Bioscience and Biotechnology (KRIBB). In this program, our investigation team, including two lepidopterists and a coleopterist, surveyed several counties including Antu, Fusong, and Changbai. Moths were mostly collected by light traps, and a few of them were collected in daytime.

A total of 67 species belonging to 47 genera, seven subfamilies of Pyraloidea were recognized in the Mt. Chanbai-shan fauna. Of these, 11 species, *Eudonia hiranoi* Inoue, *Scoparia yamanakai* Inoue, *Crambus argyrophorus* Butler, *Goniorhynchus exemplaris* Hampson, *Herpetogramma moderatalis* (Christoph), *Herpetogramma pseudomagna* Yamanaka, *Opsibotys perfuscalis* Munroe et Mutuura, *Pleuroptya harutai* (Inoue), *Pyrausta rubiginalis* (Hübner), *Hypsopygia regina* Butler, and *Orthopygia nannodes* (Butler) were reported for the first time from China, and six species, *Catoptria persephone* Bleszynski, *Chrysoteuchia daisetusuzana* (Matsumura), *Crambus sibiricus* Alphéraky, *Herpetogramma pseudomagna* Yamanaka, *Psammotis orientalis* Munroe et Mutuura, and *Pyrausta rubiginalis* (Hübner) were unknown from the Korean Peninsula. Short remarks, synonyms, and distributional ranges of the newly reported species in China and the unknown species in the Korean Peninsula are provided. All the material examined for this study will be preserved in the Horticulture and Forest Department, Yanbian University in China, CIS in Korea, and Department of Biology, University of Incheon (UIB) in Korea. For the main taxonomic informations of the species of Pyraloidea, referred to Shen and Liu (1988), Wang (1980), Inoue (1982), Munroe (1972, 1973, 1976), Neunzig (1986, 1987), Park (1983), Bae (2001), and Robinson, Tuck and Shaffer (1994).

Collecting dates and sites for the light trap in Mt. Changbai-shan, and its vicinities are as follows:

Site. 1. At Electric power plant, 760 m, 1 VIII 1999 (42° 22'34"N, 128° 05'55"E), 10 km from Erdaobaihe towards Changbai-Waterfall.

Site. 2. Near Heping Lin Chang, around, 850 m, 27 VII 2000 (42° 19'04"N, 128° 07'37"E); about 20 km away from Erdaobaihe (= Idobekwha) towards Changbai Waterfall.

Site. 3. Dixiashenlin, 1,750 m, 28 VII 2000 (42° 13'36"N, 128° 03'23"E), upper limit of a Broad-leaf Belt including *Betula* spp., about 500 m away from the Hotel Doogyunsanjang.

Site. 4. Entrance of Dixiashenlin, 1,700 m, 29 VII 2000 (42° 04'28"N, 128° 03'55"E).

Site. 5. At Electric Power plant, 760 m, 30 VII 2000 (42° 22'34"N, 128° 05'55"E), 10 km far from Erdaobaihe towards Changbai Water Fall.

Site. 6. Chongshan, 600 m, 31 VII 2000 (42° 05'33"N, 128° 59'33"E); the light trap screen was placed just beside the Doumen (= Duman) Riverside, almost border to North Korea. Almost all collected materials are from the North Korean side.

Site. 7. Jiashan, 600 m, 1 VIII 2000 (42° 38'40"N, 128° 54'28"E), 50 km NE and takes 70 min. from Longjing (= Yongjung) by car.

Site. 8. (= near site 7), Jiashan, 600 m, 2 VIII 2000 (42° 38'N, 128° 54'E), 50 km NE and takes 70 min. from Longjing by car.

Site. 9. Yanbian coll. camp., Longjing, 280 m, 12 VII 2001 (42° 46'75"N, 129° 23'17"E).

Site. 10. (= near site 7). Jiashan, 680 m, 13 VII 2001 (42° 37'26"N, 128° 51'20"E), 50 km NE and takes 70 min. from Longjing by car.

Site. 11. Xinfeng, Helong, 870 m, 14 VII 2001 (42° 01'49"N, 128° 25'43"E); collected only at daytime.

Site. 12. (near site 6). Chongshan, 600 m, 14 VII 2001 (42° 05'33"N, 128° 59'33"E); the

light trap screen was placed just beside the Doumen Riverside, almost border to North Korea. Almost all collected materials are from the North Korean side.

Site. 13. Helong, 15 VII 2001, 1260 m (42° 01' 13''N, 128° 27' 19''E), near Shaosuo placed closely to North Korean boundary.

Site. 14. (= Site 2). Dixiashenlin, 1,750 m, 15 VII 2001 (42° 13' 36''N, 128° 03' 23''E), upper limit of a Broad-leaf Belt including *Betula* spp., about 500 m away from the Hotel Doogyunsanjang.

Site. 15. Weidong, Fusong-xian, 1255 m, 16 VII 2001 (42° 05' 33''N, 127° 45' 54''E).

Site. 16. Malugou, Changbai-xian, 730 m, 17 VII 2001 (41° 27' 36''N, 128° 12' 53''E).

Site. 17. At Electric Power plant, 760 m, 18 VII 2001 (42° 22' 34''N, 128° 05' 55''E), 10 km far from Erdaobaihe towards Changbai Water Fall.

Site. 18. Pingding-shan, Antu-xian, 900 m, 19 VII 2001 (42° 39' 55''N, 128° 58' 47''E).

Site. 19. Near Yadongshuiku, Helong, 734 m, 19 VII 2001 (42° 45' 05''N, 128° 01' 33''E).

Site. 20. Jiashan, 570 m, 20 VII 2001 (42° 38' 40''N, 128° 54' 28''E), 50 km NE and takes 70 minutes from Longjing by car.

Site. 21. (near site 6). Chongshan, Datong, 720 m, 3 VIII 2002 (42° 04' N, 128° 55' E), the light trap placed at distance about 500 m from Doumen Riverside.

Site. 22. (near site 4). Xiaotianchi, 1700 m, 4 VIII 2002 (42° 03' N, 128° 03' E), the light trap placed just beside at Xiao-tianchi lake, the main vegetation: *Betula* spp.

Site. 23. (near site 15). Weidong, Fusong-xian, 1400 m, 5 VIII 2002 (42° 03' N, 127° 49' E).

Site. 24. (near site 16). Malugou, Changbaixian, 730 m, 6 VIII 2002 (41° 27' N, 128° 12' E).

Site. 25. (near site 16). Malugou, Changbaixian, 730 m, 7 VIII 2002 (41° 27' N, 128° 12' E).

Site. 26. Erdaobaihe, 740 m, 8. VIII. 2002 (N 42° 24' E 128° 06').

Site. 27. (near site 10). Jiashan, Helong, 756 m, 9 VIII 2002 (42° 38' N, 128° 54' E).

Site. 28. Wolong, Helong, 460 m, 10 VIII 2002 (42° 41' N, 129° 02' E).

## RESULTS

### Family Pyralidae Subfamily Scopariinae

#### 1. *Eudonia hiranoi* Inoue, 1982 (Fig. 1)

*Eudonia hiranoi* Inoue, 1982, Moths of Japan 1: 313, 2: 224, pl. 36: 46, 47, pl. 300: 8, pl. 301: 10. TL (= type locality): Japan (Nagano).

Wingspan, 18 mm. This species is similar to Japanese species *Eudonia microdentalis* (Hampson), but can be distinguished from the latter by the two small white spots on outside of the cross vein of forewing. The species is recorded from China for the first time.

1 ♂, site 26.

*Distribution.* China (new record), Japan, Russia (Kuriles).

#### 2. *Scoparia yamanakai* Inoue, 1982 (Fig. 2)

*Scoparia yamanakai* Inoue, 1982, Moths of Japan 1: 311, 2: 224, pl. 36: 35, pl. 300: 2, pl. 301: 3. TL: Japan (Nagano).

Wingspan, 19–20 mm. This species is superficially similar to *S. ambigualis* (Treitschke), but can be separated from the latter by the slender blackish spot in discal cell of forewing. The species is recorded from China for the first time.

1 ♂, 1 ♀, site 24.

*Distribution.* China (new record), Japan, Russia (Kuriles).

### Subfamily Crambinae

#### 3. *Catoptria permiaca* (Petersen, 1834)

1 ♂, 1 ♀, site 4; 1 ♂, site 5; 1 ♀, site 6; 2 ♂, site 12; 1 ♀, site 14; 1 ♂, site 15; 2 ♂, 2 ♀, site 17; 1 ♂, site 21; 1 ♂, site 23; 5 ♂, 1 ♀, site 24; 1 ♂, site 27.

#### 4. *Catoptria persephone* Bleszynski, 1965 (Fig. 3)

*Catoptria persephone* Bleszynski, 1965, in Amsel et al. Microlepid. Palaearct. 1: 304, pl. 18: 222.

Wingspan, 16–20 mm. This species is similar to *Catoptria satakei* (Okano) in the superficial appearance, but can be distinguished from the latter by the slender and longer forewing.

1 ♂, site 12; 2 ♂, 1 ♀, site 15; 1 ♂, site 17; 1 ♀, site 26.

*Distribution.* China, Japan.

#### 5. *Chilo suppressalis* (Walker, 1863)

1 ♀, site 6; 2 ♂, 1 ♀, site 24.

#### 6. *Chrysoteuchia daisetusuzana* (Matsumura, 1927) (Fig. 4)

*Crambus daisetusuzana* Matsumura, 1927, Insecta Matsum. 1: 117, fig. 8. TL: Japan (Hokkaido).

Wingspan, 24 mm. This species can be easily separated from other related species by the distinct shape of median line of forewing.

1 ♂, site 15.

*Distribution.* China, Japan.

#### 7. *Chrysoteuchia diplogramma* (Zeller, 1863)

1 ♂, site 5; 1 ♂, 1 ♀, site 17.

#### 8. *Chrysoteuchia mandschurica* (Christoph, 1881)

1 ♂ site 6.

#### 9. *Chrysoteuchia porcelanella* (Motschulsky, 1861)

1 ♀, site 4; 1 ♂, site 5; 3 ♂, 1 ♀, site 7; 1 ♂, 1 ♀, site 8; 1 ♂, site 12; 1 ♂, site 15; 4 ♂, 1 ♀, site 24; 1 ♂, site 28.

#### 10. *Crambus argyrophorus* Butler, 1878 (Fig. 5)

*Crambus argyrophorus* Butler, 1878, Ill. Col. Br. Mus. 2: 61. TL: Japan (Yokohama).

Wingspan, 25–26 mm. This species is recorded from China for the first time.

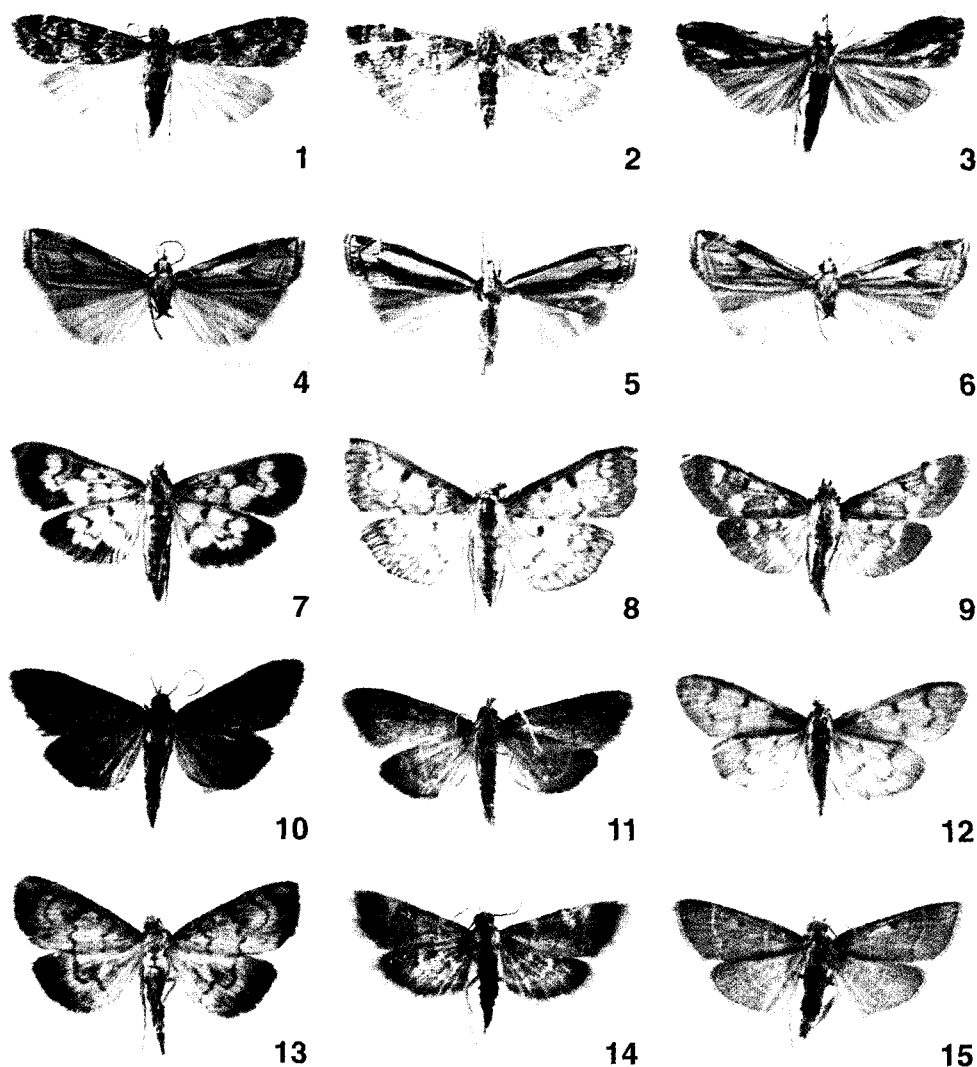
2 ♀, site 23.

*Distribution.* China (new record), Korea, Japan.

#### 11. *Crambus sibiricus* Alphéraky, 1897 (Fig. 6)

*Crambus sibiricus* Alphéraky, 1897, in Romanoff, Mém. Lépid. 9: 346.

*Crambus hayachinensis* Okano, 1957, Rep. Gakugei Fac. Iwate Univ. 12(2): 77, pl. 1: 1, 2.



**Figs. 1–15.** Adults of Pyraloidea spp.: 1. *Eudonia hiranoi* Inoue; 2. *Scoparia yamanakai* Inoue; 3. *Catoptria persephone* Bleszynski; 4. *Chrysoteuchia daisetuzana* (Matsumura); 5. *Crambus argyrophorus* Butler; 6. *Crambus sibiricus* Alphéraky; 7. *Goniorhynchus exemplaris* Hampson; 8. *Herpetogramma moderatalis* (Christoph); 9. *H. pseudomagna* Yamanaka; 10. *Opsibotys perfuscalis* Munroe et Mutuura, ♂; 11. *O. perfuscalis* Munroe et Mutuura, ♀; 12. *Pleuroptya harutai* (Inoue); 13. *Pyrausta rubiginalis* (Hübner); 14. *Hypsopygia regina* Butler; 15. *Orthopygia nannodes* (Butler).

Wingspan, 23 mm. Superficially the species is similar to *Crambus silvellus* (Hübner), but can be distinguished from the latter by the distinct white triangle spot near apex.

1 ♂, site 4; 1 ♂, site 23; 1 ♂, site 24.

*Distribution.* China, Japan, Russia (West Siberia, South Siberia), Central Asia.

**12. *Flavocrambus striatellus* (Leech, 1889)**

1 ♀, site 4; 1 ♀, site 5; 1 ♂, site 12; 1 ♂, site 24; 1 ♂, site 27.

**13. *Platytes ornatella* (Leech, 1889)**

1 ♀, site 12.

**Subfamily Evergestinae****14. *Evergestis forficalis* (Linnaeus, 1758)**

1 ♂, site 24.

**15. *Evergestis junctalis* (Warren, 1892)**

1 ♀, site 2; 1 ♂, 1 ♀, site 4; 2 ♂, 1 ♀, site 5; 1 ♂, site 7; 1 ♂, 1 ♀, site 8; 4 ♂, site 12; 1 ♂, 1 ♀, site 15; 1 ♂, site 17; 2 ♂, 1 ♀, site 24; 1 ♂, 2 ♀, site 27.

**Subfamily Pyraustinae****16. *Diasemia recticularis* (Linnaeus, 1761)**

1 ♂, 1 ♀, site 8; 1 ♂, site 26; 1 ♀, site 27; 1 ♂, site 28.

**17. *Eurrhypara lancealis* ([Denis et Schiffermüller], 1775)**

*Material examined.* 1 ♂, site 24.

**18. *Glyphodes quadrimaculalis* (Bremer et Grey, 1853)**

1 ♂, 1 ♀, site 5; 1 ♀, site 7; 1 ♂, 1 ♀, site 8; 2 ♂, site 24.

**19. *Goniorhynchus exemplaris* Hampson, 1898 (Fig. 7)**

*Goniorhynchus exemplaris* Hampson, 1898, Proc. Zool. Soc. London 1898: 705; Okamoto, 1924, Bull. Agr. Eup. Chosen (2): 150. TL: Japan.

Wingspan, 25–26 mm. This species is recorded from China for the first time.

2 ♀, site 6; 1 ♂, site 7.

*Distribution.* China (new record), Korea, Japan.

**20. *Haritalodes derogata* (Fabricius, 1775)**

2 ♂, site 5; 2 ♂, 2 ♀, site 6; 1 ♀, site 7; 3 ♂, 4 ♀, site 12; 1 ♂, site 17; 4 ♂, 1 ♀, site 24; 1 ♂, site 27.

**21. *Herpetogramma luctuosalis* (Guenée, 1854)**

1 ♀, site 5; 1 ♀, site 6; 1 ♂, 1 ♀, site 8; 1 ♂, 1 ♀, site 24; 1 ♂, site 27.

**22. *Herpetogramma magna* (Butler, 1879)**

1 ♂, 1 ♀, site 5; 8 ♂, 2 ♀, site 6; 4 ♂, 1 ♀, site 7; 1 ♂, site 8; 1 ♀, site 15; 2 ♂, site 17.

**23. *Herpetogramma moderatalis* (Christoph, 1881) (Fig. 8)**

*Botys moderatalis* Christoph, 1881, Bull. Soc. Imp. Nat. Moscow. 56(1): 25. TL: Russia (Amur).

Wingspan, 31–35 mm. This species is recorded from China for the first time.

1 ♀, site 5; 3 ♂ site 6; 4 ♂, 1 ♀, site 7; 1 ♂, site 12.

*Distribution.* China (new record), Korea, Japan, Russia (Ussuri, Amur).

**24. *Herpetogramma pseudomagna* Yamanaka, 1976 (Fig. 9)**

*Herpetogramma pseudomagna* Yamanaka, 1976, *Tinea* 10: 1, figs. 1, 2, 5, 10.

Wingspan, 27–29 mm. This species is similar to *Herpetogramma magna* (Butler), but differs from the latter by the small, slender wings. The species is recorded from China for the first time.

1 ♀, site 6; 1 ♂, 1 ♀, site 24.

*Distribution.* China (new record), Japan.

**25. *Loxostege aeruginalis* (Hübner, 1796)**

2 ♂, 3 ♀, site 12.

**26. *Mabra charonialis* (Walker, 1859)**

1 ♀, site 5; 1 ♂, site 6; 1 ♀, site 7; 1 ♂, site 8; 1 ♂, 2 ♀, site 12; 3 ♂, 1 ♀, site 24; 1 ♀, site 27.

**27. *Margaritia sticticalis* (Linnaeus, 1761)**

1 ♀, site 24; 1 ♂, 1 ♀, site 27.

**28. *Nacoleia chrysorycta* (Meyrick, 1884)**

2 ♂, site 5; 1 ♂ site 24.

**29. *Nacoleia sibirialis* (Milliere, 1879)**

2 ♂, site 6; 1 ♂, 1 ♀, site 12; 1 ♂, site 15; 1 ♀, site 16; 1 ♂, site 27.

**30. *Nomophila noctuella* ([Denis et Schiffermüller], 1775)**

1 ♂, site 24; 1 ♀, site 27.

**31. *Omiodes poenonalis* (Walker, 1859)**

4 ♂, 3 ♀, site 5; 8 ♂, 3 ♀, site 6; 6 ♂, 2 ♀, site 7; 1 ♀, site 15.

**32. *Opsibotys perfuscalis* Munroe et Mutuura, 1969 (Figs. 10–11)**

*Opsibotys perfuscalis* Mutuura, 1969, *Can. Ent.* 101: 904. TL: Japan (Komanoya).

Wingspan, 19–21 mm. This species is recorded from China for the first time.

2 ♂, 1 ♀, site 7; 1 ♂, site 8; 3 ♂, 1 ♀, site 24; 2 ♀, site 27.

*Distribution.* China (new record), Korea, Japan.

**33. *Palpita nigropunctalis* (Bremer, 1864)**

1 ♂, site 5; 2 ♂, site 6; 1 ♀, site 7.

**34. *Paratalanta ussuralis* (Bremer, 1864)**

2 ♀, site 6; 1 ♂, site 7; 1 ♂, site 8.

**35. *Pleuroptya expictalis* (Christoph, 1881)**

1 ♂, site 12; 1 ♀, site 15.

**36. *Pleuroptya harutai* (Inoue, 1955) (Fig. 12)**

*Phostria harutai* Inoue, 1955, Trans. Lep. Soc. Jap. 6(4): 21. TL: Japan.

Wingspan, 34–38 mm. This species is recorded from China for the first time.

1 ♂, site 5; 1 ♂, 1 ♀, site 6; 1 ♀, site 7; 2 ♂, site 12.

*Distribution.* China (new record), Korea, Japan.

**37. *Pleuroptya ruralis* (Scopoli, 1763)**

2 ♂, 3 ♀, site 5; 7 ♂, 4 ♀, site 6; 3 ♂, 1 ♀, site 7; 1 ♂, site 15; 2 ♂, site 24; 1 ♂, site 27.

**38. *Psammotis orientalis* Munroe et Mutuura, 1968**

*Psammotis orientalis* Munroe et Mutuura, 1968, Can. Ent. 100: 976, figs. 3, 4.

Wingspan, 26 mm. This species is easily distinguished from other species by the broad forewing and white square marking on hindwing.

1 ♂, site 24.

*Distribution.* China, Japan, Russia (Kuriles).

**39. *Pseudebulea fentoni* Butler, 1881**

1 ♀, site 6; 2 ♂, 3 ♀, site 12; 6 ♂, site 15; 1 ♂, site 16; 2 ♂, 1 ♀, site 17.

**40. *Pycnarmon lactiferalis* Walker, 1859**

1 ♂, site 5; 1 ♂, site 6; 1 ♂, site 7; 1 ♂, site 24.

**41. *Pycnarmon tylostegalis* (Hampson, 1900)**

2 ♂, site 12; 1 ♂, site 15; 1 ♂, 4 ♀, site 17; 1 ♂, 1 ♀, site 24; 1 ♂, site 27; 1 ♂, site 28.

**42. *Pyrausta aurata* (Scopoli, 1763)**

2 ♂, 1 ♀, site 12; 1 ♂, site 24.

**43. *Pyrausta contigualis* South, 1901**

1 ♂, site 24; 1 ♂, site 28.

**44. *Pyrausta neocespalis* Inoue, 1982**

1 ♂, site 27.

**45. *Pyrausta rubiginalis* (Hübner, 1796) (Fig. 13)**

*Pyralis rubiginalis* Hübner, 1796, Samml. eur. Schmett. 6: pl. 12, fig. 79.

Wingspan, 18–20 mm. This species is similar to *Anania verbascalis* (Denis et Schiffermüller), but can be distinguished from the latter by the orange forewing.

2 ♂, site 8; 1 ♀, site 12; 1 ♂, site 24; 1 ♂, site 27.

*Distribution.* China (new record), Japan.

**46. *Pyrausta tithionalis* Zeller, 1872**

1 ♂, site 24.

**47. *Sitochroa verticalis* (Linnaeus, 1758)**

1 ♀, site 6; 2 ♀, site 7; 1 ♀, site 12; 1 ♂, 1 ♀, site 24.



**48. *Sylepta seignalis* (Leech, 1889)**

1 ♂, site 6; 1 ♂, 1 ♀, site 12; 1 ♂, site 17; 1 ♂, site 27.

**49. *Tabidia strigiferalis* Hampson, 1900**

1 ♂, 1 ♀, site 17; 1 ♂, site 23; 1 ♂, site 24; 1 ♀ site 27.

**50. *Udea lugubralis* (Leech, 1889)**

1 ♂, site 23; 1 ♂, 2 ♀, site 27.

**51. *Urespita gracilis* (Butler, 1878)**

1 ♀, site 5.

**Subfamily Nymphulinae****52. *Elophila fengwhanalis* (Pryer, 1877)**

1 ♂, site 28.

**53. *Elophila turbata* (Butler, 1881)**

1 ♂, site 8.

**54. *Paraponyx vittalis* (Bremer, 1864)**

3 ♂, 1 ♀, site 6; 1 ♀ site 12.

**Subfamily Galleriinae****55. *Aphomia zelleri* (Joannis, 1932)**

3 ♂, 1 ♀, site 4; 1 ♂, site 5; 1 ♂, site 7; 2 ♂, site 8; 1 ♂, 1 ♀, site 24.

**Subfamily Epipaschiinae****56. *Craneophora ficki* (Christoph, 1881)**

1 ♂, site 7; 1 ♀, site 23; 1 ♂, 1 ♀, site 27.

**57. *Teliphasa elegans* (Butler, 1881)**

1 ♀, site 24.

**Subfamily Pyralinae****Tribe Pyralini****58. *Hypsopygia regina* Butler, 1879 (Fig. 14)***Pyralis regina* Butler, 1879, Ann. Mag. Nat. Hist. (5)4: 452. TL: Japan.

Wingspan, 14 mm. This species is recorded from China for the first time.

1 ♂, site 6.

*Distribution.* China (new record), Korea, Myanmar, India.**59. *Orthopygia glaucinalis* (Linnaeus, 1758)**

1 ♀, site 24.

**60. *Orthopygia nannodes* (Butler, 1879) (Fig. 15)**

*Pylalis nannodes* Butler, 1879, Ill. Lep. Het. Br. Mus. 3: 71. TL: Japan.

Wingspan, 20–26 mm. This species is recorded from China for the first time.

1 ♀, site 5; 1 ♂, site 6; 1 ♀, site 7; 3 ♂, 1 ♀, site 12; 1 ♀, site 24; 1 ♀, site 27.

*Distribution.* China (new record), Korea, Japan.

**61. *Orthopygia placens* (Butler, 1879)**

2 ♂, 1 ♀, site 12.

**62. *Pylalis regalis* [Denis et Schiffermüller], 1775**

1 ♀, site 2; 1 ♀, site 5; 1 ♂, 1 ♀, site 6; 5 ♂, 2 ♀, site 12; 1 ♂, site 15; 2 ♀, site 24.

**63. *Sacada fasciata* Butler, 1878**

1 ♂, site 12.

**64. *Stemmatophora valida* (Butler, 1879)**

4 ♂, 4 ♀, site 6; 2 ♂, 1 ♀, site 8; 1 ♂, 1 ♀, site 12; 1 ♂, site 16; 3 ♂, 1 ♀, site 24; 1 ♂, site 27.

### Tribe Endotrichini

**65. *Endotricha costamaculalis* Christoph, 1881**

1 ♂, site 12; 1 ♂, 1 ♀, site 15.

**66. *Endotricha kuznetzovi* Whalley, 1963**

1 ♂, 1 ♀, site 24; 1 ♂, 1 ♀, site 27.

**67. *Endotricha olivacealis* (Bremer, 1864)**

1 ♂, site 27.

**Acknowledgments** We wish to express our hearty thanks to Prof. K.T. Park of CIS, Prof. J.K. Park, Sangju National University, and Mrs J.S. Lee, H.B. Han, and G.W. Lee (CIS), for their kind help and suggestion during the survey. Our thanks are also due to Assoc. Prof. D.Y. Kim, Horticulture and Forest Department, Yanbian University in China, for his kind arrangement of Mt. Changbai–shan. We are greatly indebted to Mr. L.G. Piao, Director of the Changbai–shan National Museum of Natural History in China, for his generous help and courtesy extended to us during our expeditions. This work was supported in part by a grant from the KRIBB in the year 2000–2002.

### REFERENCES

- Bae, Y.S., K.T. Park, and D.Y. Kim. 2000. Olethreutinae (Lepidoptera, Tortricidae) from Mt. Changbai–shan in China, part I. *Ins. Koreana* 17(4): 287–302.
- Bae, Y.S. 2001. Lepidoptera (Pyraloidea: Pyraustinae & Pylalinae). *Ins. Koreana* (Suppl. 16): 1–251.
- Inoue, H. 1982. Pylalidae. *In* Inoue, H. et al. (eds.), *Moth of Japan* 1: 307–404, 2: 223–253, pls. 36–48, 298–314. Kodansha, Tokyo.

- Ju, C., W. Gao, and K. Wang. 1997. Biological Species and Distribution in Jilin Province. China, 649 pp. Northeast Normal Univ. Press. China.
- Munroe, E. 1972. Pyraloidea (part). In Dominick, R.P. *et al.* (eds.), The Moth of America North of Mexico 13.1(A): 1-134(1972); 13.1(B): 135-250(1972); 13.1(C): 253-304, [i]-xx, pls. 1-13, A-K(1973); 13.2(A): 78; 13.2(B): 81-150(1976). London.
- Neunzig, H.H. 1986. Pyraliodes: Pyralidae (part). In Dominick, R.B. *et al.* (eds.), The moths of America North of Mexico. Washington DC; Wedge Ent. Res. Found. 1-113.
- Neunzig, H.H. 1987. Pyralidae (Pyraliodes). In Stehr, F.W.(ed.), Immature Insects. Dubuque, Iowa: Kendall Hunt Publishing Co.: 462-494.
- Park, K.T. 1983. Pyralidae. In Microlepidoptera of Korea. Ins. Koreana 3: 93-157.
- Robinson, G.S., K.R. Tuck, and M. Shaffer, 1994. Pyraloidea. In A Field Guide to the Smaller Moths of South-East Asia. Malaysian Nature Society, Kuala Lumpur. 183-191.
- Shen, G.P. and Y.Q. Liu. 1988. Category of Jiangxi Microlepidoptera. pp. 84, pls. 30. Editorial Board of Journal Jiangxi Agricultural University.
- Wang, P.Y. 1980. Lepidoptera: Pyralidae. In Economic Insect Fauna of China. Fasc. 21, 229 pp, pls. 1-32. Science Press. Beijing.
- Wang, P.Y. 1983. Pyralidae. In Iconographia Heterocerorum Sinicorum I. pp. 56-89. pls. 12-20. Science Press. Beijing.

(Received: November 10, 2002, Accepted: January 7, 2003)